

## AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

### Listing of Claims:

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1 (currently amended). A radio transmission apparatus, comprising:

an antenna ~~comprised of~~ having first and second linear polarization antenna elements perpendicular to each other;

a modulator that modulates ~~modulating means for modulating~~ transmission data to output a modulated signal; and

a phase controlling means for providing a controller that shifts a phase of said modulated signal by one of 0 degrees and 180 degrees ~~phase difference to the modulated signal corresponding to the transmission data to output according to a value of the transmission data per bit.~~

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Cont.

2 (currently amended). The radio transmission apparatus ~~according to~~ of claim 1, wherein ~~[[the]]~~ said first and second linear polarization antenna elements are ~~located~~ positioned with longitudinal directions thereof crossing.

3 (currently amended). The radio transmission apparatus ~~according to~~ of claim 1, wherein ~~[[the]]~~ said first and second linear polarization antenna elements are ~~located~~ positioned at a spaced interval on a plane with a longitudinal relationship between ~~[[the]]~~ elements indicative of twisted positions.

4 (currently amended). The radio transmission apparatus ~~according to~~ of claim 1, wherein ~~[[the]]~~ said first and second linear polarization antenna elements are ~~located~~ positioned at a spaced interval with a longitudinal relationship between the elements indicative of having an angle.

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5 (currently amended). The radio transmission apparatus ~~according to~~ of claim 1, wherein ~~[[the]]~~ said ~~phase controlling means is multiplying means for multiplying~~ controller comprises a multiplier that multiplies a transmission signal by a reference signal to multiply a ~~reference~~ signal that inverts a polarity of ~~[[the]]~~ said transmission signal corresponding to ~~[[the]]~~ said reference signal.

6 (currently amended). A radio transmission apparatus, comprising:  
an antenna ~~comprised of~~ having first and second linear polarization antenna elements perpendicular to each other;

a modulator that modulates ~~modulating means for modulating~~ transmission data to ~~output~~ and outputs a modulated signal;

a spreader that spreads said ~~spreading means for spreading the~~ modulated signal to output a spread signal; and

a phase controller that shifts a phase ~~controlling means for providing a~~ of said spread ~~signal by one of 0 degrees and 180 degrees phase difference to the spread signal~~ ~~corresponding to~~ according to a value of a spreading code to output per chip, said spreading code using a spreading process.

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Cont 7 (currently amended). The radio transmission apparatus ~~according to~~ of claim 6, wherein ~~[[the]]~~ said first and second linear polarization antenna elements are ~~located~~ positioned with longitudinal directions thereof crossing.

8 (currently amended). The radio transmission apparatus ~~according to~~ of claim 6, wherein ~~[[the]]~~ said first and second linear polarization antenna elements are ~~located~~ positioned at a spaced interval on a plane with a longitudinal relationship between ~~[[the]]~~ elements indicative of twisted positions.

9 (currently amended). The radio transmission apparatus ~~according to~~ of claim 6, wherein ~~[[the]]~~ said first and second linear polarization antenna elements are ~~located~~

positioned at a spaced interval with a longitudinal relationship between [[the]] elements indicative of having an angle.

10 (currently amended). The radio transmission apparatus ~~according to~~ of claim 6, wherein [[the]] said phase ~~controlling means is multiplying means for multiplying~~ controller comprises a multiplier that multiplies a transmission signal by a reference signal to multiply a ~~reference~~ signal that inverts a polarity of [[the]] said transmission signal corresponding to [[the]] said reference signal.

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11 (currently amended). A radio transmission apparatus, comprising:  
an antenna ~~comprised of~~ having a first antenna element and a second antenna element that ~~provide~~ with different planes of polarization;  
a modulator that modulates ~~modulating means for modulating~~ transmission data to ~~output and outputs~~ a modulated signal; and  
a switch that switches a destination of said modulated signal between said [[the]] first antenna element and [[the]] said second antenna element ~~to input the modulated signal thereto corresponding to the~~ according to a value of said transmission data per bit.

12(currently amended). A radio transmission apparatus, comprising:

an antenna ~~comprised of~~ having a first antenna element and a second antenna element ~~that provide~~ with different planes of polarization;

a modulator that modulates ~~modulating means for modulating~~ transmission data ~~[[to]]~~ output and outputs a modulated signal;

a spreader that spreads said ~~spreading means for spreading the~~ modulated signal to output and outputs a spread signal; and

a switch that switches a destination of said spread signal between said ~~the~~ first antenna element and the said second antenna element ~~to input the spread signal thereto corresponding to a spreading code according to a value of a spreading code per chip, said spreading code~~ using a spreading process.

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Cont.

13 (currently amended). A radio transmission apparatus, comprising:

an antenna that ~~enables~~ transmits two kinds of polarizations perpendicular to each other and switches said polarizations according to a value of ~~to be transmitted and further enables the polarizations to be switched corresponding to transmission data~~ per bit; and

a modulator that modulates said ~~modulating means for modulating the~~ transmission data ~~to output and outputs~~ a modulated signal.

14 (canceled).

15 (currently amended). A radio reception apparatus, comprising:  
~~a receiver that receives~~ receiving means for receiving a plurality of signals ~~signal~~  
transmitted with ~~[[a]]~~ different ~~plane of polarization~~ planes;  
~~an~~ electric field strength ~~detector that detects~~ ~~detecting means for detecting~~ ~~an~~ a  
~~received~~ electric field strength of ~~the signal~~ said plurality of signals; and  
~~a determiner that performs~~ ~~determining means for making~~ a data determination ~~by~~  
~~associating a magnitude of said received electric field strength based on a detected result on~~  
~~the~~ by said electric field strength detector with data.

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16 (currently amended). The radio reception apparatus ~~according to~~ of claim 15,  
wherein said determiner ~~the determining means~~ makes a determination on data itself at ~~the~~  
~~a~~ time of a strong first electric field strength, while with respect to data at ~~the~~ a time of a  
second electric field strength, weaker than said first ~~weak~~ electric field strength, ~~inverting the~~  
said data at the time of said strong first electric field strength is inverted to make a said  
determination.

17 (currently amended). The radio reception apparatus ~~according to~~ of claim 15,  
wherein said determiner ~~the determining means~~ comprises a D-flip flop ~~receiving that~~  
receives as its input data to be corrected and as its gate input a delayed judged result, and an

X-NOR gate ~~receiving~~ that receives as its inputs an output of ~~the~~ said D-flip flop and ~~the~~ said judged result.

18 (new). A radio transmission apparatus, comprising:

a modulator that modulates transmission data and outputs a modulated signal;

a spreader that spreads said modulated signal and outputs a spread signal; and

an antenna that transmits two kinds of polarizations perpendicular to each other, and switches said polarizations according to a value of a spreading code per chip, said spreading code using a spreading process.

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